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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. **MBI-0054**

First Inventor **JIANG, Cai-Zhong**

Title **POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS**

Express Mail Label No. **EV 059 357 305 US**

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages **500**]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets **26**]
5. Oath or Declaration [Total Pages **4**]
 - a. ☐ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 18 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☒ Computer Readable Form (CRF) (1 of Copy 3)
 - b. Specification Sequence Listing on:
 - i. ☒ CD-ROM or CD-R (2 copies); or
 - ii. ☐ 2 CD-ROM's (1 of COPY 1; 1 of COPY 2) paper
 - c. ☒ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Petition For Inclusion of Color Photographs (3 pp., in duplicate)

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____

Prior application information:

Examiner: _____

Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Labelor ☐ Correspondence address below

Name

23678

PATENT TRADEMARK OFFICE

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

Jeffrey M. Libby, Ph.D.

Registration No. (Attorney/Agent)

48,251

Signature

Date

Sept 18, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

17169 U.S. 09/18/03

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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 750.00

Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	JIANG, Cai-Zhong
Examiner Name	To Be Assigned
Art Unit	To Be Assigned
Attorney Docket No.	MBI-0054

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number 50-1025

Deposit Account Name Mendel Biotechnology, Inc

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Credit any overpayments

☐ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	750.00
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$) 750.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims		Fee from below	Fee Paid
Total Claims	20	-20** =	-0-	x 18.00	= -0-
Independent Claims	3	-3** =	-0-	x 84.00	= -0-
Multiple Dependent				0	= 0

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	84	2201	42	Independent claims in excess of 3	
1203	280	2203	140	Multiple dependent claim, if not paid	
1204	84	2204	42	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					(\$) 750.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0

SUBMITTED BY

Name (Print/Type)	Jeffrey M. Libby	Registration No. (Attorney/Agent)	48,251	Telephone	510-259-6138
Signature		Date	Sept 18, 2003		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of : Jiang et al.

Title: Polynucleotides and Polypeptides in Plants

Serial No.: TBA

Filing Date: Herewith

Examiner: TBA

Group Art Unit: TBA

Mail Stop Patent Application
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION FOR INCLUSION OF COLOR PHOTOGRAPHS IN A UTILITY PATENT
APPLICATION PURSUANT TO 37 C.F.R. §1.84(B)(2)

Dear Sir:

This is a request under the provisions of 37 CFR 1.84(B)(2) to include at least one color photograph in the above-referenced utility patent application. Applicant herewith includes three (3) sets of the color photographs, specifically Figures 4, 5A-D, 6A-D, 7A-D, 8A-C, 9A-B, and 10A-B.

Applicant has included the following language as the first paragraph in that portion of the specification relating to the brief description of the drawings:

The file of this patent contains at least one drawing executed in color. Copies of this patent with color drawing(s) will be provided by the Patent and Trademark Office upon request and payment of the necessary fee.

10/07/2003 550000003 501025 10666642
01 FC:1460 130.00 DA

Certificate of Express Mailing

I hereby certify that this document and referenced attachments are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR '1.10, addressed to: Mail Stop Patent Application, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date:

Sept 18, 2003

Express Mail label number

EV 059 357 305 US

Signature:

Printed:

Jeffrey M. Libby

Applicant respectfully submits that the inclusion of color photographs in the utility patent application is necessary for the following reasons.

1) For Figures 4, 5C-5D, 7A-7B, and 8B-8C, the use of color is advantageous in determining the degree of cotyledon expansion, since the edges of the cotyledons are best identified by contrasting their green color against the background.

2) In Figures 6A, 6B, 6C and 6D, and Figures 10A-10B, the effects of water deprivation are best contrasted by comparing the differences in the degree of wilting and color between control and transgenic plants that appear in these photographs. Control plants are wilted and pale or gray-green in color, whereas transgenic plants are less wilted and have a medium green color. This color difference is much more pronounced in the photographs showing the differences after rewatering. Control plants are dead, as indicated by the degree of desiccation and, in particular, their brown color, whereas the transgenic plants recovered, as indicated by their turgor and, in particular, their vivid green color.

3) In Figures 5A and 5B, the use of color is necessary to compare the amount of the pigment anthocyanin that is produced by overexpressing (Figure 5A) and wild-type (Figure 5B) seedlings.

4) Figure 7C indicates the effects of fungal disease by the formation of fungal mycelia on diseased plants, which is best viewed by contrasting the gray mycelia with the green plants. Fungi also cause a degree of chlorosis in infected, wild-type plants in Figure 7D, but not in overexpressing plants in the same figure; this subtle color difference is best discerned in a color photograph.

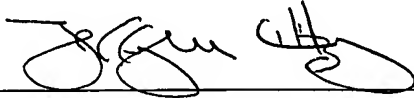
5) Figures 8A and 9B compare the effects of high salt treatment on plant seedlings. One of these effects in the wild-type seedling is bleaching, i.e., a lack of color, which is, of course, best compared with healthier seedlings in a color photograph.

6) In Figure 9A, the effects of a heat assay on overexpressing and wild-type plants is in part discerned by the pale appearance of the overexpressing plants, best viewed by comparing the amount of green pigment in both categories of plant.

The Commissioner is hereby authorized to charge Mendel Biotechnology, Inc., Deposit Account No. **50-1025**, the amount of **\$130.00**, the fee for such a petition as set forth under 37 C.F.R. §1.17(i), or charge the correct fee to said Deposit Account, as the Commissioner deems appropriate.

Respectfully submitted,

Date: September 16, 2003

By: 
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